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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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2662

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/927,474

Applicant(s)

CUNETTO ET AL

Examiner

Habte Mered

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/13, 4/19, 11/29.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 1, 2, 4-14, 17, 20, 21, 25, 26, and 28-31** are rejected under 35 U.S.C. 102(e) as being anticipated by Gallant et al (US Pub. No. 2001/0026553), hereinafter referred to as Gallant.

Gallant discloses a method used for bandwidth control in ATM network whereby a Switched Virtual Circuit (SVC) call request is initially authenticated by checking if the call originator is associated to the access port where the call originated from and if so the network will apply the originator's individual service policies. Gallant discloses to implement a bandwidth control system, similar to that of the applicant, a system that contains an ATM end or edge switch, a Service Control Point (SCP) with an intelligent policy server system, and an ATM Signaling Intercept Processor (ASIP). For all practical purposes, Gallant discloses that the SCP and ASIP can be considered as part of the ATM edge switch. (See also Paragraph 44) The ASIP is responsible for the communication between the ATM edge switch and the SCP/Policy Server. The ASIP will intercept signaling messages generated at the edge switch prior to establishing an

end-to-end switched virtual circuit and forward it the SCP/Policy Server. The return message from the policy server will determine whether a SVC call connection can be made. The policy server serves as the subscriber profile database as well as the registration server. (See Figure 1 and Paragraphs 8, 36, 42, and 43)

3. Regarding **claims 1 and 25**, Gallant discloses a method for associating a switched virtual circuit (SVC) connection request in a high speed data network with a network subscriber, the method comprising:

receiving a signaling protocol message requesting the SVC connection from the subscriber at an access port; **(See Paragraph 15; Figure 4A steps 402 and 404 and Paragraphs 59 and 60)**

determining whether the signaling protocol message contains authentication data to authenticate the subscriber; **(See Paragraph 16. Gallant discloses that the SCP/policy server shall make a determination based at least in part on the signaling message, policy profile authorized for a port, et cetera, if a particular policy feature is to be invoked. See step 408 in Figure 4A and Paragraph 59; See also step 810 in Figure 8 and Paragraph 77) and**

when the subscriber is authenticated, associating the SVC connection request with data from an account corresponding to the subscriber. **(See Paragraph 19. Since Gallant's policy server houses the subscriber account, which shows what features are associated with the subscriber, along with the information to verify the subscriber, authentication and associating request with user account may appear as a one step process. However, at the policy server a simple check like**

verifying if the customer is authorized to use the access port constitutes the authentication process while associating the special call features from the caller's account with the call before setting up the SVC call is a second step. See also step 410 in Figure 4A and Paragraph 60; See also step 812 in Figure 8 and Paragraph 77)

4. Regarding **claims 2 and 26**, Gallant discloses the method for associating an SVC connection request, further comprising:

retrieving service policies from the subscriber account; (**Gallant discloses that the policy server has access to a profile array database containing service profiles of each subscriber as shown in Figure 3. The SCP/policy server effectuates these policy features from the subscriber account found in Figure 3. See also steps 410 in Figure 4A and Paragraphs 17, 59, and 60**)

determining from the service policies whether the subscriber is entitled to access the network from the access port, as requested; (**See step 414 in Figure 4B and Paragraph 60**) and

enabling access to the high speed network when the service policies entitle the subscriber to make the requested access. (**See step 416 in Figure 4B and Paragraph 60**)

5. Regarding **claims 4, 6, 11, and 28**, Gallant discloses the method for associating an SVC connection request, further comprising registering an address of the access port in the network by substituting the address of the access port for an existing subscriber address. (**See Paragraphs 38, 49, and 58 and Figure 3; In Gallant's**

system there is no need to replace the address of the access port in the network with that of the customer. As shown in Figure 3, at provisioning time the relationship between the ATM network address and the logical port and the customer will have to be established first. Such a basic level of provisioning is a must to both Gallant's and the applicant's systems or else chaos will reign and the ATM switch will have no way to verify which customer is allowed to make an SVC call from a given port. However, if the applicant is referring to the actual virtual channel it is determined by the switch at the time the SVC call is about to be established and the switch must associate the logical port and the customer address with the end-to-end virtual channel)

6. Regarding **claim 5**, Gallant discloses a method for associating a switched virtual circuit (SVC) connection request from one of a plurality of subscribers at a single access port in a high speed data network, **(See Paragraph 73)** the method comprising: receiving a signaling protocol message requesting the SVC connection from the access port, the signaling protocol message comprising a plurality of data fields**(See Paragraph 39; The signaling protocol message is a Q.2931 setup message and has several data fields; See also Paragraph 15; Figure 4A steps 402 and 404 and Paragraphs 59 and 60)** retrieving authentication data from at least one of the plurality of data fields; **(See Paragraph 16. Gallant discloses that the SCP/policy server shall make a determination based at least in part on the signaling message, policy profile authorized for a port, et cetera, if a particular policy feature is to be invoked. See**

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step 408 in Figure 4A and Paragraph 59; See also step 810 in Figure 8 and Paragraph 77)

comparing the retrieved authentication data with a plurality of network subscriber accounts; **(See also step 410 in Figure 4A and Paragraph 60; See also step 812 in Figure 8 and Paragraph 77)** and

associating the SVC connection request with the network subscriber account corresponding to the authentication data; **(See also step 410 in Figure 4A and Paragraph 60; See also step 812 in Figure 8 and Paragraph 77)**

wherein at least one other subscriber of the plurality of subscribers can request simultaneously an SVC connection from the same access port. **(See Paragraphs 73, 78, and 143)**

7. Regarding **claim 7**, Gallant discloses the method for associating an SVC connection request, further comprising:
receiving at least one connection request from another user of the high speed network, the request directed to the subscriber; and
terminating the at least one connection request to the registration address. **(See Figures 2A, 2B, 4A and 4B)**

8. Regarding **claim 8**, Gallant discloses a method for associating a network policy with a subscriber in an asynchronous transfer mode (ATM) network, the network policy including rights for establishing a switched virtual circuit (SVC) connection, the method comprising: **(See Paragraphs 10, 11, 12, 15-19)**

interfacing between the ATM network and the subscriber through an ATM compatible access port; **(See Paragraphs 38 and 39 and step 802 in Figure 8)**

receiving at the ATM network a conventional signaling protocol message requesting the SVC connection; **(See step 402 in Figure 4A; step 808 in Figure 8)**

determining whether the signaling protocol message contains a first identification number associated with the subscriber; **(See step 810 in Figure 8; Subscriber or CPE address is the first identification number to be determined)**

when the signaling protocol message contains the first identification number, determining whether the signaling protocol message contains a second identification number that correctly corresponds to the first identification number; **(See step 810 in Figure 8; Customer Logical Port (CLP) is the 2nd identification number to be determined)**

when the signaling protocol message contains the correctly corresponding second identification number, retrieving the service policy from an account associated with the first identification number and the second identification number; **(See step 812 in Figure 8; Step 408 in Figure 4A)**

determining whether the retrieved service policy permits the subscriber to establish an SVC connection; **(See step 414 in Figure 4B)** and

when the retrieved service policy permits the subscriber to establish an SVC connection, establishing the SVC connection. **(See step 812 in Figure 8 and Step 416 in Figure 4B)**

9. Regarding **claim 9**, Gallant discloses the method for associating a network policy with a subscriber in an ATM network, wherein the first identification number comprises a publicly known number associated with the subscriber and the second identification number comprises an encrypted private password associated with the first identification number. **(Gallant discloses the authentication can be done at different levels so long as the information that needs to be verified can be carried in the initial setup message and does not exclude encrypted private password. See Paragraph 16)**

10. Regarding **claims 10 and 21**, Gallant discloses the method for associating a network policy with a subscriber in an ATM network, the signaling protocol message comprising a SETUP message, the first identification number being contained in a first predetermined field of the SETUP message and the second identification number being contained in a second predetermined field of the SETUP message. **(See Paragraphs 39 59. Standard SETUP message is used by Gallant and any of the optional information elements can be used to transport the first and second identification numbers.)**

11. Regarding **claims 12 and 29**, Gallant discloses a method for registering an access port of a subscriber in a high speed data network, the method comprising: establishing a connection between a subscriber terminal and a network registration database, the subscriber terminal accessing the high speed data network via the access port; **(Gallant discloses that the SCP/policy server is the network registration database and contains policy features allowed for the subscriber account. The**

subscriber terminal is in effect has a connection to the policy server through the ATM access port via the ASIP. See Figure 1 and Paragraph 40)

retrieving from the registration database a registration address associated with the subscriber; **(See Figure 3 and Paragraph 49 and 58; Gallant's policy server also acts as the address registration database) and**

replacing the registration address with an address of the access port . **(See Paragraphs 38, 49, and 58 and Figure 3; In Gallant's system there is no need to replace the address of the access port in the network with that of the customer. As shown in Figure 3, at provisioning time the relationship between the ATM network address and the logical port and the customer will have to be established first. Such a basic level of provisioning is a must to both Gallant's and the applicant's systems or else chaos will rein and the ATM switch will have no way to verify which customer is allowed to make an SVC call from a given port. However, if the applicant is referring to the actual virtual channel it is determined by the switch at the time the SVC call is about to be established and the switch must associate the logical port and the customer address with the end-to-end virtual channel).**

12. Regarding **claim 13 and 30**, Gallant discloses a method for registering an access port of a subscriber in a high-speed data network, further comprising: terminating connection requests directed to the subscriber at the address of the access port, indicated as the registration address associated with the subscriber. **(See Figures 2A, 2B, 4A and 4B; See Paragraphs 45 and 59)**

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13. Regarding **claims 14 and 31**, Gallant discloses the method for registering an access port of a subscriber in a high speed data network, further comprising: prior to retrieving the registration address associated with the subscriber, authenticating the subscriber; **(See Figure 3 and Paragraphs 16, 49, and 58; In Gallant's system the customer's address initially registered can be retrieved as part of the authentication or after authentication as it is readily available as indicated in Figure 3 with elements 302, 304, and 306) and** when the subscriber is successfully authenticated, retrieving service policies corresponding to the subscriber. **(See step 812 in Figure 8; Step 408 in Figure 4A)**

14. Regarding **claim 17**, Gallant discloses a system for processing a switched virtual circuit (SVC) connection request in a high speed data network **(See Paragraphs 12 and 17)**, the system **(See Figure 1)** comprising: a registration server that stores at least one identification number associated with a network subscriber; **(Element 114B in Figure 1; Policy Server contains at least one identification number associated with a customer as shown in Figure 3)** a database that stores at least one policy defining permission to establish SVC connections; **(Element 114B in Figure 1; Policy Server contains at least one policy defining permission to establish SVC call as shown in Figure 3)** and at least one switch in the high speed data network that accesses the registration server and the database; **(See element 104B in Figure 1)**

wherein the switch is accessible by at least one access port, connectable to the switch, which enables the network subscriber to interface with the high speed data network from a subscriber terminal; **(See Paragraphs 38)** and

wherein the switch receives a protocol message from the subscriber terminal requesting the SVC connection via the access port, accesses the registration server to determine whether the protocol message contains valid authentication data, retrieves the at least one policy associated with the network subscriber from the registration database when the protocol message contains valid authentication data, and establishes the SVC connection according to the at least one policy. **(See Paragraphs 45-47)**

15. Regarding **claim 20**, Gallant discloses a system for processing services of a subscriber in an asynchronous transfer mode (ATM) network, including establishing a switched virtual circuit (SVC) connection, the system comprising:

a registration server that stores authentication data associated with the subscriber, the authentication data comprising an identification number and a password; **(Element**

114B in Figure 1; Policy Server contains at least one identification number

associated with a customer as shown in Figure 3; Gallant discloses the authentication can be done at different levels so long as the information that needs to be verified can be carried in the initial setup message and does not exclude encrypted private password. See Paragraph 16)

a service database that stores at least one ATM policy comprising establishing the SVC connection; **(Element 114B in Figure 1; Policy Server contains at least one policy defining permission to establish SVC call as shown in Figure 3) and**

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at least one ATM switch that accesses the registration server and the service database, the ATM switch being connectable to an access port that enables the subscriber to interface with the ATM network from a subscriber terminal(See element 104B in Figure 1);

wherein the registration server determines whether a signaling protocol message requesting the SVC connection, received via the access port, includes the identification number and the password associated with the subscriber; and

wherein, when the protocol message includes the identification number and the password, the at least one ATM switch accesses the service database to determine the ATM service policies associated with the subscriber and processes the SVC connection request according to the ATM service policies.(Gallant discloses the authentication can be done at different levels so long as the information that needs to be verified can be carried in the initial setup message and does not exclude encrypted private password. See Paragraph 16)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 3, 15, 16, 18, 19, 22-24, 27, 32, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gallant et al (US Pub. No. 2001/0026553), hereinafter referred to as Gallant in view of Zhou et al (IEEE, 1999, Efficient Location

management for Hybrid Wireless ATM Networks Architecture and Performance Analysis, Zhou et al), hereinafter referred to as Zhou.

Regarding **claims 3, 15, 18, 27 and 32**, Gallant disclosed the aforementioned invention but does not disclose the method wherein the high-speed subscriber can request an SVC call from an access port that is different from a permanent access port of the subscriber.

Zhou discloses an efficient location management system for a hybrid wireless ATM network (See Figure 1). The network uses two types of database a Home Location Register (HLR) and Visitor Location Register. The HLR stores the pre-assigned permanent address of the subscriber. When the subscriber uses a different access port in a different cell then it registers with the VLR to get a temporary address reflecting the new access port different from the permanent one. Zhou further indicates that the mobile subscriber has to register its temporary and permanent address with the VLR. The VLR updates the HLR. **(See Page 380 Sections III and IV; Zhou discloses how a subscriber can use an access port different from the pre-assigned permanent one and yet be able to receive calls because the HLR is current with its current address.)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gallant's system to incorporate a means of accessing the network using a new access port different from the pre-assigned permanent one, the motivation being to create a viable inter-working between wireless systems and the growing ATM core network.

17. Regarding **claims 16, 19, 22-24, and 33**, Gallant disclosed the aforementioned invention but does not disclose the method wherein the high-speed subscriber can request an SVC call from an access port that is different from a permanent access port of the subscriber. Gallant further fails to disclose that the ATM subscriber has the ability at will to replace the existing registered access port with a different access port.

Zhou discloses an efficient location management system for a hybrid wireless ATM network (See Figure 1). The network uses two types of database a Home Location Register (HLR) and Visitor Location Register. The HLR stores the pre-assigned permanent address of the subscriber. When the subscriber uses a different access port in a different cell then it registers with the VLR to get a temporary address reflecting the new access port different from the permanent one. Zhou further indicates that the mobile subscriber has to register its temporary and permanent address with the VLR. The VLR updates the HLR. Each time the wireless ATM subscriber moves from one cell to another it goes through the registration process. Consequently, the temporary address reflecting the new port address gets re-written in the HLR. Therefore, Zhou gives the wireless ATM subscriber limited option to replace an existing address of an access port with another one as long as it is temporary address. . **(See Page 380 Sections III and IV; Zhou has disclosed a method where by an ATM wireless subscriber can readily replace the existing address of a port as long as it is temporary and different from the permanent one in the HLR. Thus from a technical perspective the know how to allow the end user to replace the permanent address exists as established by Zhou. However, from an operation**

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perspective it makes a lot more sense to only allow the service provider to change the permanent address from a tracking perspective.)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Gallant's system to incorporate a means of accessing the network using a new access port different from the pre-assigned permanent one, the motivation being to create a viable inter-working between wireless systems and the growing ATM core network.

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patent is cited to show the state of the art with respect to ATM network access node and radio network controller:

US Patent (US 6, 801, 508) to Lim

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Habte Mered whose telephone number is 571 272 6046. The examiner can normally be reached on Monday to Friday 9:30AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571 272 3088. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HM
04-08-2005



KENNETH VANDERPUYE
PRIMARY EXAMINER